

Landscape Political Ecologies of Urban 'Swiftlet Farming' in George Town, Malaysia

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Abstract:	<p>In previous engagements with political ecologies, cultural geographers have been interested in intersections between place making and environmental health, nature, environment and landscape interrelations, and their mutually co-constituted, socially constructed and contested nature. This paper explores these themes through the experiences of urban activists in George Town, Penang, who have been involved in resisting the proliferation of 'swiftlet farms' in residential areas. 'Swiftlet farms' are typically converted shophouses or other buildings which have been modified for the purpose of harvesting the nests of the edible-nest swiftlet. They have generated significant controversy in George Town given their perceived impacts on urban health, quality of life, and (in)tangible forms of urban heritage. In examining spaces of the city that have been transformed through the 'swiftlet farming' industry, this paper aims to highlight the ways in which individuals experience everyday landscapes of swiftlet farming, and how they might engage in reshaping them. The paper develops the conceptual framing of landscape political ecology (LPE), which allows for a closer understanding the socio-natural production, transformation and contestation of urban landscapes. The research is based on six months of participatory ethnographic fieldwork conducted in Malaysia, much of which was developed in collaboration with local stakeholders. The paper concludes with a reflection on how the particular approach set out here can shed important light on the role of praxis and everyday lived experience in shaping contemporary urban environmental politics.</p>

Introduction

In the summer of 1998, the Southeast Asian financial bubble imploded. Global capital moved spasmodically from place to place, leaving cities like Jakarta with a social and physical wasteland where dozens of unfinished skyscrapers are dotted over the landscape while thousands ...roam the streets in search of survival....Puddles of stagnant water in the defunct skyscrapers that had once promised continuing capital accumulation for Indonesia became breeding grounds and ecological niches for mosquitoes... Global capital and the technoscapes of the world’s financial architecture fused with global climate, with local power struggles, and with socio-ecological conditions to re-shape Jakarta’s social ecology in profound, radical, and deeply troubling ways.¹

The particular moment that Erik Swyngedouw and Nik Heynen discuss in the above excerpt is also the very same moment, and combination of various socio-economic conditions, that led to the rise of edible birds’ nest harvesting (or ‘swiftlet farming’) in Malaysia. Edible birds’ nests are considered a Chinese delicacy and are a common ingredient in Chinese medicines, consequently attracting over US\$2,000 per kilogram on the global market. The nests are constructed by the saliva of the edible nest swiftlet (*Aerodramus Fuciphagus*), which are native to Southeast Asia. Traditionally, these swiftlets would breed in caves across the region, where their nests have been harvested for hundreds of years. However, over the past two decades, a new phenomenon of urban harvesting has proliferated in Indonesia, Malaysia, Vietnam, and southern Thailand, where buildings are converted (or constructed anew) in to cave-like structures designed for attracting swiftlets and ‘farming’ their nests. In Malaysia alone, there are now an estimated 30,000 swift houses contributing an estimated US\$400 million to the national economy. The industry is thus promoted under the Malaysian Economic Transformation Programme (ETP), as it is seen as a key industry for raising employment and income levels across the country.²

However, since many of the buildings used are converted pre-war heritage shophouses in urban residential areas, the industry has generated a considerable amount of controversy regarding its impact on urban health, (in)tangible heritage, and the urban environment more

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3 broadly. Amongst the concerns regarding swiftlet houses are their potential to spread disease
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5 from bird droppings, sick birds or pools of stagnant water (which can act as breeding grounds for
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7 dengue infected mosquitoes).³ In addition, swiftlet houses have been criticised for preventing a
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9 healthy environment for other businesses and residents to operate and live in; devaluing
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11 neighbouring homes and businesses; while also creating noise pollution through the swiftlets and
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13 loud speakers (or ‘tweeters’) used to attract them.⁴ This paper focuses on George Town, Penang,
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15 which has experienced the most intense controversy of all Malaysian cities related to this
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17 industry. This is largely because of George Town’s status as a UNESCO World Heritage Site
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19 (jointly listed with Malacca) since 2008, which was perceived to be jeopardised by the
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21 widespread conversion of heritage shophouses into swiftlet farms, and their impact on the urban
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23 landscape.
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29 The analysis in this paper utilises the conceptual framing of landscape political ecology
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31 (LPE), which, as the name suggests, draws from the political ecology literature, and studies of
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33 landscape in cultural geography, offering dynamic ways of understanding the socio-natural
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35 production, transformation and contestation of urban landscapes.⁵ The research is based on six
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37 months of multi-sited, participatory ethnographic fieldwork conducted in Malaysia, of which
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39 over three months was spent in Penang. Much of the time in George Town was spent on
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41 secondment with the Penang Heritage Trust (PHT), which has been a primary civil society
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43 organization involved in lobbying against the proliferation of swiftlet farms in George Town.
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45 Given that the primary objective of the research was to investigate how swiftlet farms are
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47 perceived and contested in everyday life, the combination of research methods used was
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49 designed to highlight the ways in which individuals experience everyday landscapes of swiftlet
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51 farming, and how they might engage in reshaping them.⁶ As I will argue, the lens of landscape,
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in particular, allows for more inquiry into the nuance and detail of local political ecologies and enables a closer examination of how the local and global are intertwined in particular places.⁷

In the following sections, I will describe the various research methods that were used, and have structured the paper around one particularly illustrative walking interview conducted in George Town in November, 2013. I first discuss the conceptual framing of landscape political ecology and how this has influenced the particular methodological approach used for this research. In particular, I have adopted the methodological strategy of ‘tracing the controversies’ developed by Yaneva and Heaphey, which aims to examine the social and spatial dynamics of social controversies on a lived basis. This also explains the decision to frame the paper around the walking interview, as it is useful for exploring the everyday, quotidian impacts and personal experiences of swiftlet farming in Malaysian cities. The research presented in the paper is also fleshed out with other research material collected during the broader fieldwork in Penang and discussing the wider implications and relevance of the sites visited. Finally, I conclude with a consideration of how the particular approach set out here can shed important light on the role of praxis and everyday lived experience in shaping contemporary urban environmental politics.

Towards a Landscape Political Ecology: Tracing the Controversies Over the Urban

Landscape

Controversies over the form and function of the urban landscape are important to study from a political ecology perspective because they reflect uncertainties regarding the costs of particular instances of socio-natural transformation on the built environment and are frequent symptoms of cities in the making.⁸ Following this framing, struggles over the aesthetics of landscape are at the core of material struggles over the environment.⁹ While Brenda Yeoh has

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3 asserted that most urban landscapes can be interrogated as terrains of quotidian conflict and
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5 negotiation, she maintains that this is particularly true of colonial cities given the divergence in
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7 perceptions of the urban environment.¹⁰ Indeed, George Town's rich colonial and mercantile
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9 history has created a society with divergent cultural and economic interests, and environmental
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11 subjectivities, which have resulted in the conflict at hand.
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15 In previous engagements with political ecologies, cultural geographers have been
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17 interested in intersections between place making and environmental health;¹¹ nature,
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19 environment and landscape interrelations, and their mutually co-constituted, socially constructed
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21 and contested nature.¹² As Tony Bebbington and Simon Batterbury observed over a decade ago
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23 in the pages of this journal, the eclecticism and diversity of political ecology makes the field 'an
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25 important meeting point' for work in environmental politics and cultural geography.¹³ In
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27 examining such controversies over urban and regional transformation, political ecologists have
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29 highlighted the material and discursive aspects of landscape from multiple angles. For example,
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31 Maria Kaika has studied the role of iconography and symbolism of dam constructions in
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33 reconfiguring the relationship between 'nature' and the city in Athens, Greece.¹⁴ Similarly,
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35 Omaira Bolaños' writing on land disputes and forest conflicts in the Amazon region illustrates
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37 how emerging socio-cultural dynamics and power struggles between indigenous and non-
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39 indigenous groups have reshaped the Central Amazonian landscape.¹⁵ Such work has been
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41 inspirational in conceptualising this project, which emphasises the discursive representations of
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43 the environmental transformations associated with urban swiftlet farming in peninsular Malaysia.
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50 Some scholars have thus begun to call attention to the conceptual synergies between
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52 landscape and political ecology, whilst falling short of developing LPE into a distinctive
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54 conceptual approach.¹⁶ Moreover, much of the existing empirical work in this area has focused
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3 primarily on rural (or ‘exurban’) landscapes. This includes a previous study in this journal by
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5 Peter Walker and Louise Fortmann titled ‘Whose landscape? A political ecology of the ‘exurban’
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7 Sierra’, which examined rapid in-migration and gentrification in a former mining and ranching
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9 community in California.¹⁷ Their paper provides rich insights into how ideas about the ‘proper’
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11 form and function of the landscape are key flashpoints in the (re)development of cities and
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13 regions. It has also provided much inspiration for the approach taken here, but is also different
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15 given my focus on urban landscapes and the networked relations connecting ‘the city’ with other
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17 ‘agricultural’ or ‘natural’ spaces.
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22 The term ‘landscape’, as readers of this journal will be aware, has been used in cultural
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24 geography to refer to the appearance or physical characteristics of a certain place, with particular
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26 reference to the social, cultural, and political processes that shape these places.¹⁸ Thus, as
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28 Batterbury has pointed out, landscapes are well suited for political ecological analysis because
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30 they are simultaneously cultural and ‘natural’.¹⁹ Moreover, the new urban forms created through
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32 the swiftlet farming boom in Malaysia are important to study from the perspective of landscape
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34 because they bring to light the normative values and ideologies associated with particular urban
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36 landscapes in the country. For scholars such as Don Mitchell, the production of such landscapes
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38 is a matter of ongoing struggle and conflict between different social and economic groups, it thus
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40 typifies a contentious, compromised product of society.²⁰ What is at stake in these struggles, as I
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42 demonstrate in this paper, is precisely the issue of people’s livelihoods, which are often
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44 dependent upon the construction or maintenance of particular landscape forms.
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53 Given that there have as yet been no sustained attempts to utilise an explicit LPE
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55 approach in empirical work, this research has also involved developing a compatible
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3 methodological approach for this framework. In generating such insights, many political
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5 ecologists and cultural geographers have used ethnographic methods to consider the importance
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7 of cultural context in shaping the perceptions of stakeholders to the issue at hand.²¹ As such, my
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9 approach loosely follows that set out by Brenda Yeoh, who suggests grappling with how the
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11 urban landscape is differentially perceived and utilised by various social groups, and to examine
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13 why conflicts over the use of this space arise, and how they are resolved.²² The focus here, as in
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15 Yeoh's work, is on 'the practical nature of everyday life', and aims to illustrate how the look and
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17 function of the landscape affects the lived experience of the people who live and work within
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19 them.²³ This strategy of emphasising both sensible and relational forms of knowledge, has been
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21 integral to my effort to demonstrate the partial and sometimes contradictory aspects of everyday
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23 experiences of the swiftlet farming industry in Malaysia.
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29 The term 'everyday life' can be traced back to de Certeau's theorisation of the concept,
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31 explicated in *The Practice of Everyday Life*, in which he foregrounds the repetitive and
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33 unconscious practices of everyday life.²⁴ Relatedly, Alex Loftus' recent book *Everyday*
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35 *Environmentalism*, considered how practical experience can form the basis of everyday
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37 resistances to hegemonic power relations and the production unequal urban environments
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39 through praxis.²⁵ Other scholars, such as Kevin Dunn, have argued that everyday, local spaces
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41 are key sites for the symbolic contestation of unequal power relations.²⁶ In his study of
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43 opposition to mosque development in Sydney, for example, Dunn interrogates how the everyday
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45 becomes a critical site for the reproduction and contestation of religious and racial stereotypes.²⁷
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47 These works demonstrate how particular 'strategies and tactics' of everyday life are useful for
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49 considering the 'elements of creative resistance' to dominant power relations in society,
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51 employed by people such as city residents, urban activists, and even researchers.²⁸ This explains
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the participatory, ethnographic nature of the research presented here, which intends to contribute to the academic literature on coproduction by addressing how academics can engage with civil society organisations to address socio-ecological issues in everyday life.

In achieving this goal, I have employed a range of participatory ethnographic methods, which have been used to provide unique insights into ‘the processes and meanings that sustain and motivate social groups’.²⁹ Through such a focus, it is possible to bring to light the ways in which different people might challenge unequal power relations and injustices through everyday, place-based practices. The central component of this research was the secondment period spent with the Penang Heritage Trust, where the council members - in particular Rebecca Duckett-Wilkinson (introduced in the next section) - actively guided the direction of the empirical research, providing research material, and identifying relevant stakeholders. ‘Co-production’ is the term increasingly used to describe such forms of encounters and engagements, and is increasingly shaping research agendas, institutional practices, and forms of governance.³⁰ I maintain that such ‘co-productive’ research has enabled a more situated view of socio-ecological transformations that have transpired through urban swiftlet farming in Malaysia, and the controversies surrounding them.

Additionally, I have adopted a methodological approach to ‘tracing the controversies’, which is in line with the interests of both urban political ecology and landscape research in highlighting the dominant ideologies and discursive struggles bound up with the reconfiguration of the urban environment. As Albena Yaneva and Liam Heaphey have pointed out, this approach contains three primary steps: to follow, trace, and map the controversy.³¹ First, to *follow* controversies requires being able to trace the dynamics of the controversy in time including the relevant stakeholders, their arguments, differing positions, and how these change or progress

over time. Over 40 formal and informal interviews and focus groups were conducted with 25 different stakeholders amongst four key research sites in Malaysia (Penang, Malacca, Kuala Lumpur, Kota Kinabalu and Sitiawan). Most interviews and focus groups lasted for approximately one hour on average and were conducted with swiftlet farmers, heritage activists, municipal officers and government officials. A central component of the research was the use of mobile methods, specifically walking or 'go along' interviews.³² These involve walking or driving with informants through the spaces in which they live and work on a daily basis. As such, they are intended to capture the socio-spatial character of lived experience 'in situ', that might not come out in traditional interview settings.³³

Second, to *document* the controversy has a similar aim as the above step, but relies on documentary analysis, including blogs, newspaper articles, and online comments to such articles. Newspapers included were English dailies in Malaysia, including *The New Straits Times*, *The Star* and *The Sun*. These newspapers were examined as they contained the most articles concerning swiftlet farming in the country, as compared to Chinese, Tamil or Malay dailies. In addition, I consulted specific sources such as CSO and government reports, letters and emails between different stakeholders, as well as photos and even quantitative data pertaining to swiftlet farming in Melaka and Penang, which was made available through the PHT and other CSO resource libraries in Malaysia. Yaneva and Heaphey and other scholars maintain that the analysis of such materials is still quite ethnographic, as it allows a glimpse into the lived experiences, viewpoints, and positionalities of key informants, which would not always be accessible through other means.³⁴

Given the importance of the relationship between knowledge, place and environment, Yaneva and Heaphey argue that it is also important to *map* the controversies, which involves

visualising and analysing the spacial dynamics of the conflict, and indicating their implications for urban health and well being.³⁵ This was done through mapping the location of swiftlet farms in George Town based on a personal survey of active swiftlet farms in the city, which was conducted in March, 2014. This survey was based on previous surveys done by PHT members and other researchers, which were conducted in 2008 and 2011. The surveys focused on the Core and Buffer Zones of George Town’s World Heritage Site (WHS), which occupy the central area of the inner city.

As various scholars have pointed out, the research methods outlined above are also integral to participatory research approaches.³⁶ For example, the material used for mapping the swiftlet farms in George Town was only available through collaboration with the PHT, and in turn, their relationship with the State and City Government and local researchers. This was also the data that was the most useful to them in carrying out further action on the remaining swiftlet farms in the city. Therefore, the relevant research materials collected during this project were added to the PHT resource library, findings of the research was published in PHT newsletters, and were also used put pressure on the State Government to uphold their promises to remove swiftlet farms from George Town’s WHS (see below). In addition, walking or ‘go-along’ interviews are also highly suited to work with environmental activists, in that their focus on ‘praxis’ and ‘lived-experience’ help with understanding concrete political struggles of various kinds.³⁷ For these reasons, Roderick Neumann rightly suggests that participatory ethnographic research can play an important role in approaches to political ecology which seek to highlight the conflicting perspectives on different forms of socio-environmental transformation.³⁸

The ‘Go-Along’: Exploring Everyday Experiences of Swiftlet Farming in George Town

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3 My first meeting with Rebecca was one month into my fieldwork in October, 2013.³⁹ Rebecca -
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5 an artist, resident of George Town, and former council member of the PHT - has been the
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7 primary voice advocating for the strict regulation of swiftlet farming in the city since 2008. She
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9 originally purchased her (former) home on China Street (no. 25) in 2006 on the basis that the
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11 swiftlet farms would be cleared out by 2008, as was promised by the state government at the
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13 time. Indeed, in 2005, the Municipal Council announced that no more licenses were issued to
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15 swiftlet farmers, so no more farms could be (legally) established. The government also
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17 announced a three year 'grace period' for the removal of swiftlet farms from the WHS by the end
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19 of 2008. However, for a variety of political reasons, as I have documented elsewhere, no
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21 enforcement action took place in this period, and the deadline was extended until 2009, and then
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23 2010.⁴⁰ In 2010, the Federal Government of Malaysia announced that all swiftlet farms would be
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25 prohibited in the UNESCO zone of George Town and Malacca, which initiated the
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27 implementation of another three year action plan to remove the remaining premises.
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29 Enforcement action in George Town began promptly in 2011 and loud speakers playing recorded
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31 swiftlet calls (or 'tweeters', which were used by swiftlet farm operators to attract birds) were also
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33 banned at this time. In January 2014, the State Government of Penang proudly announced that all
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35 swiftlet farms had been removed from the UNESCO zone, despite a personal survey conducted
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37 in March, 2014, which found at least 42 active premises.⁴¹ This incongruousness is ultimately
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39 due to the contradictory position of the Government in Malaysia, which was simultaneously
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41 responsible for promoting and regulating the swiftlet farming industry. The Government's
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43 delayed enforcement action on swiftlet farms in George Town - in addition to health and safety
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45 issues - is also one of the factors that has led Rebecca to actively campaign against the presence
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47 of swiftlet farms in the urban area. In our interview, Rebecca recounted her personal experience
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with the industry, how she and her family had been personally affected by the industry over the past several years, and her role in lobbying against the pervasive swiftlet farming in George Town. As she has explained in a letter to UNESCO, ‘this has not been a mindless campaign on my part but has been from a sense of frustration at the lack of recourse to law when it comes to my right as a citizen to have basic health and safety, no fear of disease and no noise pollution etc.’⁴² We also visited her gallery, adjacent to her home, which was on the ground floor of a three story building that previously functioned as a highly successful (though unlicensed) swiftlet farm. It also shared a party wall with a neighbouring building that was an active swiftlet farm. Rebecca took me upstairs to see some of the water damage and mould growth on her side of the wall, which was caused by the sprinklers on the other side - constantly running to keep the neighbouring building damp and humid.

Our next meeting was nearly a month later, which is what much of this paper will be based upon. In order to illustrate the significant landscape transformations that swiftlet farming has brought about in George Town, and the impacts of these changes on everyday life, Rebecca offered to take me for a walking tour of the most affected areas in the inner city area.⁴³ Figure 1 documents the route we took, which was entirely within the core zone of the WHS. As mentioned in the introduction, this walking interview primarily serves as a framing device for the paper, and the research presented here is based on broader fieldwork in George Town, conducted from February through May, 2014. This section is divided below into two sub-sections, which will focus on different themes: the first, ‘urban environments, landscapes and livelihoods’, and; the second, ‘everyday political ecologies of health’.

<Figure 1 about here. Caption: The ‘go along’ (author’s map).>

Tracing the Controversies: Urban Environments, Landscapes and Livelihoods

We started the walk at the Seven Terraces, a new boutique hotel that was opened shortly before my arrival in George Town. As the name suggests, it is formed from seven adjacent shophouses, some of which used to be swiftlet farms. It is located on Lorong Stewart (Stewart Lane), which has been one of the prime swiftlet farming areas in George Town. At the time of my fieldwork, there were approximately two active swiftlet farms on Stewart Lane itself and three on Muntri Street, which is a continuation of Stewart Lane. Mary, a friend of Rebecca's used to own a boutique hotel on Muntri Street which had an open courtyard for guests to use. However, since it was adjacent to the swiftlet farms on the street, she would often get swiftlets flocking above her courtyard in the mornings and afternoons. Not only would they release their droppings into the courtyard, but they would also create a nuisance due to the high pitched noises that they would emit. As one news article put it: "apart from not allowing residents, hotel and restaurant operators and other businesses to operate in a healthy environment, swiftlet houses are also being feared in George Town for their potential to cause damage to properties and result in the devaluation of these units" [sic].⁴⁴ According to Rebecca, the neighbouring swiftlet farm was unlicensed, and the owner even added an illegal extension on top of the building to accommodate more birds. Nonetheless, despite Mary's complaints to the City Council, action was never taken on the premise. Such stories, particularly regarding the lack of responsiveness by the State Government are quite common in Penang, as I will discuss in the following section in relation to Rebecca's own property.

Rebecca was also concerned about the high numbers of swiftlet farms on Muntri Street, given the equally high concentration of guest houses and hotels in the area. "you have to question that, don't you?", she asked rhetorically. Indeed, according to a detailed land use and population survey of George Town conducted by the local consultancy firm Geografia, Stewart

Lane and Muntri Street are in a precinct characterised by tourism, entertainment and food services. The report also notes, therefore, that the abundance of swiftlet houses on Muntri Street “are not well suited to a tourism and food precinct”.⁴⁵ Rebecca told me that the swiftlet farmers would often use the rhetoric that no one actually lives in the George Town WHS - that it is all restaurants and shops - and so the swiftlet farms are not a problem. However, this could not be further from the truth, given that the Geografia report found that residential properties made up 2,353 of the 7,413 properties (31.74%) in the George Town WHS.⁴⁶ Furthermore, 59 buildings were tourist accommodation, which means that there are constantly thousands of visitors staying there as well. These issues reflect one of the central tensions highlighted by Walker and Fortmann’s earlier study, mentioned in the previous section, regarding the landscape changes and social controversies sparked by the emergence of ‘new’ economies or industries in a particular place. Swiftlet farms have thus been caught up in competing understandings of how George Town’s urban landscape should be ordered, given their implications for alternative livelihoods in the city.

A short distance from Stewart Lane we came to an unnamed alleyway behind the buildings facing Jalan Masjid Kapitan Keling (Pitt Street) which contained a high concentration of swiftlet houses in the past, which were no longer active.⁴⁷ From this alleyway, it was possible to see the ‘jack roofs’ of the two swiftlet farms on Pitt Street (see Figure 2), as well as the two openings on the back of the Eu Yan Seng building (158 Chulia St.; hereafter, EYS; see Figure 3), which faces Chulia Street. A ‘Jack roof’ refers to a (traditionally tiled) roof raised above the ridge of an existing roofline. Traditionally it would allow for covered ventilation into the main roof space, but in swiftlet farms they have largely been converted to concrete blocks on top of the roof to allow for birds to enter the building. In mornings and early evenings each day, there

would be hundreds of swiftlets flying in and out of the EYS building, which was, at the time of my fieldwork, the largest and most active of all swiftlet farms in George Town. EYS is also the oldest swiftlet house in the city, established in the early 2000s, but is disguised as a Chinese medicine shop, even though the swiftlet nesting area occupies most of the three storey building.

<Figure 2 about here, caption: The 'jack roof' on a (former) swiftlet house behind Pitt St. Notice the sealed up air vents, revealing the buildings former purpose (author's photo).>

Nonetheless, following the end of the Penang State Government's deadline for eliminating swiftlet houses within George Town's WHS at the end of 2013, it was asserted that the Eu Yan Seng building had 'ceased operation'. According to an official state document from February 2014 detailing the status of swift houses within the inner city, EYS was noted as having 'no activity' on the upper floor. I later questioned the relevant officers about this during a meeting at George Town World Heritage Incorporated (GTWHI - the State Governmental Agency in charge of monitoring the WHS), and they told me that I must have been referring to the building next door (#158 Chulia Street). I responded that the neighbouring property had ceased operations according to my observations, but that EYS was still very active. Yet the city councillor in charge of the swiftlet house operations still remained defensive, asking "how can you be sure? Maybe it's the same bird flying in and out?...Even if there are birds does not mean [it] is active". As suggested by several key informants, due to the intense pressure on George Town and the State Government to maintain its world class, World Heritage image, there was little official willingness to recognise the persistence of swiftlet farms, as this could embarrass the government for its failure to successfully handle the issue.⁴⁸ Instead, it was easier to simply convey the image that George Town was swiftlet farm free.

Since swiftlet farming is a government sponsored industry, the government has been actively supporting the industry and (potential) investors in it. As one MBPP (Majlis Bandaraya Pulau Pinang - George Town City Council) officer told me: "we are the government of the

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3 swiftlet farmers too, and must represent their interests”. Similarly, Rebecca noted that Lim Guan
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5 Eng (the Chief Minister of Penang State) ‘is apparently very much for the swiftlet farming
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7 industry, and has been influenced by the wealthy Chinese swiftlet farmers’.⁴⁹ Yet, this has
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9 created a significant conflict of interest for the state, who also need to account for the significant
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11 negative externalities arising from the industry. As a result, some stakeholders that I interviewed
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13 suggested that this created an impression that the government is either apathetic or complicit
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15 with the industry. For instance, another PHT member opined that if the State was actually serious
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17 about removing *all* swiftlet farms in the WHS, then they would shut down the Eu Yan Seng
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19 building: “if EYS was shut down, that would have a massive impact on the local swiftlet farming
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21 industry, because people would see that ‘oh shit, these guys [MBPP] are serious!’”.⁵⁰ This
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23 episode thus serves as a prime example of how exploring controversies over the urban landscape
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25 can reveal the myriad contradictions inherent in urban governance.
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32 The EYS building is also significant for the impact that swiftlet farms have had on
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34 George Town’s urban fabric and (in)tangible heritage. As Ms. Cardoso, Director of Malaysia’s
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36 National Heritage Trust (*Badan Warisan Malaysia* - BWM) explained in an earlier interview,
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38 ‘it’s a short-sightedness, they see the economic benefits now, but don’t see the long term effects
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40 on the urban landscape or public health’.⁵¹ According to Rebecca, Eu Yan Seng, “actually used
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42 to be a really nice building, and then about three or four years ago [2010/2011], they removed
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44 the windows, added an extra level and put the big banner up, as well as the fake windows/vents”.
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46 This has been one of the main arguments against swiftlet farming in George Town, in that the
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48 owners completely transform heritage buildings in an irreversible manner. As Rebecca lamented,
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50 “When it’s natural [in caves] I don’t care so much, but when it’s these 5-foot bunkers in cities
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52 that have been converted - it just offends the eyes!”. Such comments underscore the centrality of
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aesthetic landscape consumption to George Town's economy, which was threatened by this new form of natural resource production in the city.

<Figure 3 about here: Side and back view of the Eu Yan Seng building. Notice the faux windows and metal fencing atop the building, to secure and conceal the swiftlet farm in the back (author's photos)>.

Further into the tour, entering George Town's Little India district, we walked down Lorong Pasar (Market Street), which is another active swiftlet farming street. Rebecca pointed out a building at 12-18 Market Street, which used to contain EBN (short for Edible Birds' Nest) Industries. The EBNI building was located directly behind her former house (25 China St.), and the two properties were separated by a small alleyway (Lorong Chee En). The EBNI building is another prime example of the wider social and economic impacts that swiftlet farming has had on the urban environment. As seen in the two photos below (Figure 4), EBNI purchased two adjacent shophouses for their birds nest business, which previously contained two independently owned small businesses: a Chinese-run auto-parts shop (left) and an Indian textile and garment business (right). Moreover, it is a category II heritage building, yet was significantly transformed on the inside, despite more or less maintaining the previous facade of the building.⁵² However, EBNI suffered during the imposition of China's embargo on Malaysian birds nests, which lasted from 2011-2013, resulting in the business being closed before my arrival in George Town.⁵³

<Figure 4 about here, caption: Before and after shot of the EBNI building on Lebuhr Pasar (Market St.; source: MBPP).⁵⁴>

This was the fate of many swiftlet farms in George Town, which highlights the inherent economic and social unsustainability of the Malaysian swiftlet farming industry, given that it is dependent on unstable commodity markets. The proliferation of swiftlet farms displaced an array of other businesses (many of which had been operating for decades), yet ultimately resulted in a landscape of (largely) abandoned swiftlet farms throughout the country. This process resulted in a high impact assessment (HIA) being conducted on the swiftlet farming industry in George

Town, which concluded that continuation of the business “will lead to urban flight, loss of traditional trades and serious deterioration of urban space”.⁵⁵

The issues discussed so far reveal how such transformations not only affect the physical landscape, but also the cultural landscape and lived experience of a place. This controversy also elucidates how modifications to the form and function of the urban landscape are deeply embedded within competing landscape and property interests as well as differing understandings of place. As Duckett-Wilkinson put it more acutely, “swiftlet farming is a great worry for the residents and investors...because people have put hard earned money into their long term homes and developments”. Clearly, then, this controversy is not only about heritage, aesthetics, or health concerns, but also very much about money and livelihoods. The discussion thus far also demonstrates the unevenness inherent in government attempts to regulate economic activities in urban areas, which arise in part due to different understandings of which (economic) activities are seen as acceptable or desirable for a particular place. The next sub-section will complete the discussion of the walking tour, and discuss the alleged health implications that the swiftlet farming industry has brought about for urban residents living and working in George Town.

Tracing the Controversies: Everyday Political Ecologies of Health

In addition to its impact on the urban fabric of George Town, the EBNI building was also a nuisance to nearby residents given that it was retrofitted with several large compressors on the back of the building, which were connected to the humidifiers inside. Rebecca complained to the City Council about the considerable noise generated by the compressors (and from the birds themselves), but again did not manage to generate any enforcement action. This is one example of the way in which swiftlet farms not only have a detrimental impact on human health, but also

on general quality of life and mental health, related to noise emitted from the premises. Accordingly, noise has been the number one complaint from residents throughout Malaysia regarding swiftlet farms, which are actually more prevalent than health concerns.⁵⁶ This is because of the use of tweetters, which were legal in George Town, prior to 2013, and are still widely used in other Malaysian cities.

At the corner of China Street and Beach Street, there was (at the time) a small vegetarian restaurant which also contained a very active swiftlet farm above the restaurant. This is something that Rebecca expressed concern about - having swiftlet farms right above restaurants. Indeed, as Chow Kon Yeow, the Penang State official who has been in charge of controlling the swiftlet farming issue in the city told me in an earlier interview:

Those places that operate a restaurant or café at the bottom, with a swiftlet house on the top, this is totally unacceptable I think - with the health issue and all that. Personal view: it's very unethical to operate the eatery below, but if you put a sign at the top, that says the top is a swiftlet farm, then the customer can choose to go, knowing full well, but deceiving people is not ethical.

Nonetheless, such business patterns are not uncommon in George Town, as there was a popular noodle shop on nearby Chulia Street which also had a very active swift house operating on the upper levels (see Figure 5).⁵⁷ Yet, due to the intense resistance exerted by swiftlet farmers toward's the State Government's enforcement action, the State Government often only paid lip service in their attempts to close down such illegal premises.

<Figure 5 about here, caption: Active swiftlet farm above a popular Tomyam Noodle shop on Chulia St., George Town WHS. Notice the tell-tale ventilation holes and boarded-up windows on the upper stories (author's photo)>.

Rebecca also pointed out that the building next to her home, which was an active swiftlet house for the duration of my fieldwork, made a number of illegal modifications which disrupted the public space around the building. First, the owner blocked off the public lane behind the building (Lorong Chee En) with a large fence, which curtailed access of pedestrians in addition to the

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3 water and utility companies. The owner also blocked off the public five-foot way with a metal
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5 gate to prevent anyone from potentially breaking into the building. Both of these modifications
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7 are illegal according to local bylaws, yet the city council did nothing to enforce them, despite
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9 numerous complaints from Rebecca and other residents. The five-foot way is a distinct form of
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11 architecture common to Malaysia, Singapore and Indonesia, designed to shelter pedestrians from
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13 sun and rain while also improving ventilation in the city.⁵⁸ Their blockage, along with the
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15 clustering of swiftlet houses thus creates a health hazard in the city, as the five-foot ways were
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17 initially implemented on the basis of improved circulation and sanitation.
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22 Therefore, many residents of Malaysian cities like George Town were concerned with the
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24 ‘unknown diseases’ that the public could be exposed to as a result. As one anonymous doctor
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26 from Kuala Lumpur (KL) commented, “it seems that the owners of these shophouses are willing
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28 to jeopardise the health of their neighbours and the public for monetary gain”.⁵⁹ In light of these
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30 *possible* risks, a George Town resident’s group also claimed following the 2013 bird flu out
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32 break in China: “we think the people of Penang need to be warned about the possible risk. The
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34 Penang Government is not clearing out the swiftlet houses in inner George Town. Are they
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36 waiting for an outbreak?”.⁶⁰ Given the 104 recorded swiftlet houses in the George Town World
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38 Heritage Site at the time, the PHT argued that this event should serve as a warning to the State
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40 Government and Malaysian authorities to take the health threats posed by swiftlets seriously and
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42 renew their actions to eliminate swiftlet farms from residential areas. Yet, as the PHT charged,
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44 the Malaysian authorities have been negligent regarding the potential health threats of swiftlet
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46 farms. This echoes a finding highlighted by Mulligan *et al* in their study of dengue fever
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48 prevention in Putrajaya Malaysia, noting that health is not the top priority for the government, as
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50 economic factors tend to prevail.⁶¹ Nonetheless, as Cardosa underscored in an earlier interview:
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3 “this is their responsibility. The government is responsible for the safety and security of the
4 people, and this is a safety issue”.⁶²
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8 Rebecca also pointed out that there was a pool on top of the roof on the 4 story EBNI
9 building behind her, which is commonly used on top of swiftlet houses for the birds to drink out
10 of, or on the interior of buildings to keep the humidity levels up. This is another way in which
11 swiftlet farms have an impact on urban health. Rebecca explained that such stagnant pools of
12 water - if untreated - can create a risk of dengue fever, which is endemic in Malaysia. In fact,
13 Rebecca caught dengue twice between 2011 and 2012, the second of which was the hemorrhagic
14 strand, which was nearly fatal. At that point, Rebecca and her family decided to sell their home
15 on China Street (25), and move outside of the UNESCO zone, away from the swift houses. As
16 she remarked: “if it was my 14 year-old daughter who contracted it instead, she most certainly
17 would not have made it”.⁶³ As a result of this experience, Rebecca believes that there is a direct
18 link between swiftlet farming and dengue fever, as she explained in the following statement:
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36 *“Just on China Street [her street] we had 5 cases of dengue but in the small area*
37 *from China Street, Stewart Lane, Love Lane and Muntri Street, which, according to*
38 *2005 figures, have 23 swiftlet houses, there were too many cases of dengue. I*
39 *personally know and work with 5 of the people who contracted dengue just in this*
40 *area. There has just been more dengue on our street. This is appalling! Studies have*
41 *to be done to see if there is a correlation between dengue cases and location of*
42 *swiftlet farms”*.⁶⁴
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45 However, there has been no research done to link cases of dengue to the location of swiftlet
46 farms, despite repeated attempts to get this information from the State Health Department, who
47 seemed unwilling to divulge figures in this regard. Yet, dengue isn't the only health hazard that
48 Rebecca attributed to swift houses. In addition, she noted that there has been an extraordinarily
49 high incidence of lung disease amongst inner-city residents in the heritage zone, which she
50 believes is a result of the swiftlet farms.⁶⁵ The reason for this is that dried bird droppings have
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3 been known to harbour the yeast spore *Cryptococcus*, which forms colonies at 20-37C (making
4 Malaysia’s tropical habitat ideal) and is known to cause meningitis and lung infections in human
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been known to harbour the yeast spore *Cryptococcus*, which forms colonies at 20-37C (making
Malaysia’s tropical habitat ideal) and is known to cause meningitis and lung infections in human
beings through inhalation of the spores.⁶⁶ One resident elaborated on this danger by noting that:
“bird hotels are well ventilated. Some have exhaust fans on rooftops. Dried bird droppings, dried
skin and muck are disposed of through these fans. The naked eye may not be able to see these
fine airborne particles. Those living nearby breathe and eat this muck. These particles are also
virus carriers”.⁶⁷

These deleterious aspects of the swiftlet farming industry were even acknowledged by the
Malaysia Bird’s Nest Association President: “some members have no experience in the industry
and their operations might cause pollution that would harm the environment and health of
residents living near their farms”.⁶⁸ Not surprisingly, then, the Malaysian Department of Wildlife
and National Parks (PERHILITAN: Jabatan *Perlindungan Hidupan Liar dan Taman Negara*)
Law Enforcement Director reported that their office did receive numerous complaints about the
cleanliness of swiftlet farms in urban areas, yet, as with other instances reviewed here, no action
was taken in response to them. This reluctance to address such issues could also stem from the
Malaysian Government’s disposition to portray a positive image of the country, with a strong
and capable government, as noted by related studies on urban governance in Malaysia.⁶⁹

After inspecting the remaining swiftlet house on China Street, and the surrounding area,
Rebecca and I continued back to the Seven Terraces, where we ended the tour. The final
concluding section will now review the insights generated through the conceptual and
methodological approach utilised here, and reflect on the crucial role of praxis and everyday
lived experience in shaping contemporary environmental politics.

Conclusion

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3 The case of urban swiftlet farming in cities like George Town serves as a salient example of how
4 a focus on everyday lived experience can highlight the myriad social problems posed by such
5 transformations to the urban environment. So far, research on EBN cultivation has not integrated
6 socio-ecological implications of swiftlet farming, nor documented its impact on everyday life in
7 any of the countries where the industry currently takes place. This is a significant omission, as
8 considerable levels of social mobilisation and contestation have unfolded in response to the
9 negative externalities posed by the industry, its implications for alternative livelihoods, and the
10 seeming unwillingness of governments to adequately regulate the industry. Far from being a
11 mundane or esoteric phenomena confined to the Southeast Asian region, the case brings to light
12 socio-ecologically unjust processes of metabolic urbanisation and the significant social
13 controversy bound up within them. Moreover, it demonstrates how attention to everyday
14 experience can become the basis for a performative politics of embodied struggle and resistance
15 to such transformations.

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17 The methodological approach to tracing the controversies was selected based on its
18 potential to capture the more subtle forms of activism in everyday lived experience and praxis. I
19 have demonstrated how walking (or 'go along') interviews are able to point out features of the
20 landscape that would otherwise remain invisible if one were to simply conduct personal
21 observations of the city. For instance, Rebecca was able to point out which buildings had
22 formerly been swiftlet farms (but had since changed use), or about personal experiences of
23 herself and others who had been impacted by the nearby farms. She was also able to tell me
24 about the (often illegal) changes that the buildings had undertaken in their conversion into
25 swiftlet farms, and how this has impacted urban life-worlds and forms of (in)tangible urban
26 heritage. The framing of the paper around the walking interview was thus used to demonstrate

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how space and place are bound up with general health and well being in urban areas.⁷⁰ The personal stories - and the interweaving accounts of others elicited through the analogous methods employed - shed some important light on the wide-ranging implications of swiftlet farming in George Town's inner city.

The wider analytical lens of landscape political ecology has also been useful because of its recognition and consideration of the power relations manifest in the production of urban environments.⁷¹ The landscape component of LPE is particularly important particular because it renders visible the social struggles over how the landscape is (or should be) made, thereby revealing the contrasting landscape interests and cultural politics at stake. What is at stake here, is precisely the issue of competing livelihoods, which are dependent upon particular landscape forms, and the associated implications for socio-ecological wellbeing. In previous work, particularly within the Marxist tradition, the landscape is treated as a commodity in that it actively hides (or fetishizes) the labor that goes into its production.⁷² However, in the case of swiftlet farming in Malaysian cities, these struggles have been going on in a highly visible way over the past two decades, resulting in the (re)construction of landscape form over time. This illustrates the pertinence of both the urban swiftlet farming case and analytical framework of LPE.

In this sense, a focus on landscape is highly compatible with the interests of urban political ecology, while also emphasising the relationality of urban landscapes, and the constellations of different actors involved in shaping them. This was seen, for example, in the various political, cultural and economic aspects resulting in the Penang State Government's reluctance to fully deal with the problems posed by the swiftlet farming industry in George Town. In such a way, the LPE framing provides a productive lens through which to analyse the

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3 material manifestations and struggles embedded within the landscape.⁷³ While several studies
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5 over the past decade have hinted at the potential synergies between these diverse theoretical
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7 approaches, only a few studies have made an explicit attempt at synthesising the two. Yet, as this
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9 paper has aimed to illustrate, there is considerable potential for the continued development of
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11 this field, given the pivotal role of landscape in changing urban environments.
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For Peer Review

Notes

¹ E. Swyngedouw and N. Heynen, 'Urban Political Ecology, Justice and the Politics of Scale', *Antipode*, 35(5), 2003, p. 898.

² Government of Malaysia, 2010. *Economic Transformation Programme: A Roadmap for Malaysia*, Putrajaya: Performance Management and Delivery Unit, Jabatan Perdana Menteri.

³ For discussions of the potential health impacts related to swiftlet farming, see: C. Connolly, 'Bird Cages, and Boiling Pots for Potential Diseases': Contested Ecologies of Swiftlet Farming in George Town, Malaysia'', *Journal of Political Ecology*, forthcoming; G.H. Chow, et al., Detection of Newcastle Disease Virus in Edible-Nest Swiftlet (*Aerodramus Fuciphagus*) Ranches under an Oil Palm Plantation in Sungkai Perak, Malaysia. In 7th Proceedings of the Seminar in Veterinary Sciences. Selangor, Malaysia: Universiti Putra Malaysia, 2012, pp. 6–10; G. Cranbrook, 'An Unfinished Journey: Some Unresolved issues in Malaysian Swiftlet Research', Malaysian Veterinary Department. 9 April, 2010, p.13.

⁴ See C. Connolly. *A Landscape Political Ecology of 'Swiftlet Farming' in Malaysian Cities* (doctoral thesis: University of Manchester, UK, 2016).

⁵ M. Gandy, *Concrete and Clay: Reworking Nature in New York City* (London: MIT Press, 2002); M. Kaika, *City of Flows: Modernity, Nature and the City* (London: Routledge, 2005); N. Heynen, M. Kaika, & E. Swyngedouw (eds), *In the Nature of Cities : Urban Political Ecology and the Politics of Urban Metabolism* (London; New York: Routledge, 2006); E. Swyngedouw, 'Circulations and metabolisms: (Hybrid) Natures and (Cyborg) Cities'. *Science as Culture*, 15(2), 2006, pp.105–121.

⁶ See, e.g. P. Chatterton and J. Pickerill, 'Everyday Activism and transitions towards post-capitalist worlds: Everyday Activism and Transitions Towards Post-Capitalist Worlds'. *Transactions of the Institute of British Geographers*, 35(4), 2010, pp. 475–490; A. Loftus, 'Political Ecology as Praxis', in T. Perreault, G. Bridge and J. McCarthy (eds), *The Routledge Handbook of Political Ecology*, (Abingdon and New York: Routledge, 2015), pp. 179–87.

⁷ Bebbington and Batterbury, 'Transnational Livelihoods and Landscapes'; K. Zimmerer, Rescaling Irrigation in Latin America: The Cultural Images and Political Ecology of Water Resources. *Ecumene*, 7(2), 2000, pp.150–175.

⁸ A. Yaneva and L. Heaphey, 'Urban Controversies and the Making of the Social', *Architectural Research Quarterly*, 26(1), 2012, pp. 29–36;

⁹ See J.S. Duncan and N.G. Duncan, *Landscapes of Privilege: The Politics of the Aesthetic in an American Suburb*, (New York and London: Routledge, 2004).

¹⁰ B.S.A. Yeoh, *Contesting space: power relations and the urban built environment in colonial Singapore*, (Kuala Lumpur: Oxford Univ. Press, 1996).

¹¹ K.T. Evered, 'Draining an Anatolian desert: overcoming water, wetlands, and malaria in early republican Ankara'. *Cultural Geographies*, 21(3), 2014, pp.475–496.

¹² Evered, 'Draining an Anatolian desert'; A.J. Bebbington and S.P.J. Batterbury, 'Transnational Livelihoods and Landscapes: Political Ecologies of Globalization', *Ecumene*, 8(4), 2001, pp.369–80; Walker and Fortmann, 'Whose Landscape?'

¹³ Bebbington and Batterbury, 'Transnational Livelihoods and Landscapes', p.370. See also: B. King, 'Political Ecologies of Health'. *Progress in Human Geography*, 34(1), 2010, p. 43.

¹⁴ Kaika, 'City of Flows'; M. Kaika, 'Dams as Symbols of Modernization: The Urbanization of Nature between Geographical Imagination and Materiality' *Annals of the Association of American Geographers*, 96(2), 2006, pp.276–301. See also, L. Lees, 'Towards a Critical Geography of Architecture: The Case of an Ersatz Colosseum', *Ecumene*, 8(1), 2001, pp. 51–86.

¹⁵ O. Bolaños, 'Redefining identities, redefining landscapes: indigenous identity and land rights struggles in the Brazilian Amazon', *Journal of Cultural Geography*, 28(1), 2011, pp.45–72.

¹⁶ For one exception, see: R.P. Neumann, 'Political ecology III: Theorising landscape', *Progress in Human Geography*, 35(6), 2011, pp.843–850. In addition, a paper session at the 2013 Dimensions of Political Ecology Conference, 'Towards a Landscape Political Ecology', did make an initial attempt at launching an explicit LPE approach, despite not resulting in subsequent publications.

¹⁷ P. Walker and L. Fortmann, 'Whose Landscape? A Political Ecology of the 'Exurban Sierra'. *Cultural Geographies*, 10, 2003, pp. 469–491.

- ¹⁸ D.E. Cosgrove and S.J. Daniels (eds), *The Iconography of Landscape : Essays on the Symbolic Representation, Design, and Use of Past Environments* (Cambridge: Cambridge University Press, 1987); D. Mitchell, *The Lie of the Land : Migrant Workers and the California Landscape* (Minneapolis: University of Minnesota Press, 1996); J. Wylie, *Landscape* (London, Routledge, 2007).
- ¹⁹ S. Batterbury, Landscapes of Diversity: A Local Political Ecology of Livelihood Diversification in South-Western Niger. *Ecumene*, 8(4), 2001, pp.439-40.
- ²⁰ Mitchell, *Lie of the Land*. See also, S. Zukin, *Landscapes of Power: From Detroit to Disney World* (Berkeley: University of California Press, 1991).
- ²¹ For example: J. Harper, 'Breathless in Houston: A Political Ecology of Health Approach to Understanding Environmental Health Concerns', *Medical Anthropology*, 23(4), 2004, pp.295-326; D. Moore, 'Marxism, culture, and political ecology: environmental struggles in Zimbabwe's eastern highlands', In R. Peet & M. Watts, (eds), *Liberation ecologies: environment, development, social movements* (London: Routledge, 1996), pp. 124-47; K. Parizeau, 'Urban political ecologies of informal recyclers 'health in Buenos Aires, Argentina. *Health & Place*, 33, 2015, pp.67-74.
- ²² Yeoh, 'Contesting Space'.
- ²³ *ibid*, p. 10.
- ²⁴ M. de Certeau, *The Practice of Everyday Life* (Berkeley: University of California Press, 1984).
- ²⁵ A. Loftus, *Everyday Environmentalism : Creating an Urban Political Ecology* (Minneapolis: University of Minnesota Press, 2012).
- ²⁶ K. Dunn, 'Representations of Islam in the Politics of Mosque Development in Sydney', *Tijdschrift voor Economische en Sociale Geografie*, 92(3), 2001, pp.291-308.
- ²⁷ *ibid*.
- ²⁸ de Certeau, 'The Practice of Everyday Life'; Loftus, 'Everyday Environmentalism'.
- ²⁹ S. Herbert, 'For ethnography', *Progress in Human Geography*, 24(4), 2000, p. 550.
- ³⁰ See, for example: S. Kondon, R. Pain and M. Kesby (eds), *Participatory Action Research Approaches and Methods: Connecting People, Participation and Place* (London: Routledge, 2007); J. Monk, P. Manning and C. Denman, 'Working Together: Feminist Perspectives on Collaborative Research and Action', *ACME: An International E-Journal for Critical Geographies*, 2(1), 2003, 91-106; R. Pain, 'Social geography: participatory research', *Progress in Human Geography*, 28(5), 2004, 652-663.
- ³¹ A. Yaneva, *Mapping controversies in architecture* (Burlington: Ashgate, 2012); Yaneva and Heaphey, 'Urban Controversies and the Making of the Social', *Architectural Research Quarterly*, 26(1), 2012, pp. 29-36; See also, L. Lees, 'Towards a Critical Geography of Architecture: The Case of an Ersatz Colosseum', *Cultural Geographies*, 8(1), 2001, p.51-86.
- ³² J. Anderson, 'Talking whilst walking: a geographical archaeology of knowledge'. *Area*, 36(3), 2004, 254-261; M. Kusenbach, 'Street Phenomenology: The Go-Along as Ethnographic Research Tool', *Ethnography*, 4(3), 2003, pp.455-485.
- ³³ Carpiano, 'Come Take a Walk With Me: The "Go-Along" interview as a novel method for studying the implications of place for health and well-being', *Health & Place*, 15(1), 2009, pp. 263-72; Evans and Jones, 'The Walking Interview: Methodology, mobility and place', *Applied Geography*, 31(2), 2011, pp. 849-858; Kusenbach, 'Street Phenomenology'.
- ³⁴ See also Liew, K.K. & Pang, N., 2015. Neoliberal visions, post-capitalist memories: Heritage politics and the counter-mapping of Singapore's cityscape. *Ethnography*, 16(3), pp.331-351.
- ³⁵ See Figure 1 for a map of the key sites related to the swiftlet farming controversy in George Town, as will be discussed in the following section.
- ³⁶ See J. Evans and P. Jones, 'The walking interview'; P. Jones, G. Bunce, J. Evans, H. Gibbs and J. Ricketts Hein, 'Exploring space and place with walking interviews. *Journal of Research Practice*', 4(2), 2008, pp. 1-9; Kusenbach, 'Street Phenomenology'; Pain, 'Social geography: participatory research'.
- ³⁷ Anderson, 'Talking Whilst Walking'.
- ³⁸ Neumann, R.P., 2005. *Making Political Ecology* (London; New York: Oxford University Press, 2012).
- ³⁹ Unless otherwise requested by the individual, all names used here are pseudonyms.
- ⁴⁰ On the contrary, the number of swiftlet farms actually increased during this period, reaching a peak of 173 (estimated) in 2011. See: Connolly, *A Landscape Political Ecology of 'Swiftlet Farming' in Malaysian Cities*, ch.8.
- ⁴¹ A. Ngui, George Town is Swiftlet farm free. *The Sun (Malaysia)*, 8 January, 2014.

⁴² Duckett-Wilkinson, correspondence, 5 May 2011.

⁴³ As Margareth Kusenbach (in ‘Street Phenomenology’), has stressed, it is important that participants choose the route walked in order to shed light on their authentic interpretations of space and place.

⁴⁴ M. Emmanuel, ‘Penang swiftlet industry needs a proper nest’, *New Straits Times*, 2010, p.B2.

⁴⁵ Geografia, *George Town Land Use and Population Survey: Method, Results and Implications* (George Town, Malaysia: ThinkCity, 2010), np.

⁴⁶ Geografia, ‘George Town Land Use and Population Survey’.

⁴⁷ Following Malaysian independence in 1957, the new Malay government renamed all streets in Malaysia’s colonial enclaves such as George Town. However, many of the old names are still commonly used by residents, hence my reference to both.

⁴⁸ This attitude on behalf of government officials in Malaysia has also been documentd by other scholars, see: K. Mulligan, S.J. Elliott, C.Shuster-Wallace, ‘The place of health and the health of place: Dengue fever and urban governance in Putrajaya, Malaysia’, *Health and Place*, 18, 2012, pp.613-20.

⁴⁹ Duckett-Wilkinson, interview, George Town, 28 April 2014.

⁵⁰ M. Lay, Interview, George Town, Malaysia, 18 April, 2014. On a more recent visit to George Town in August, 2016, EYS still had hundreds of swiftlets flying in and out, nearly three years after the deadline for closure of swiftlet farms inside the WHS. Given the political and economic influence of the EYS company, it is conceivable that they will be able to continue operating the swiftlet farm for the foreseeable future.

⁵¹ Duckett-Wilkinson, interview, George Town, 8 October 2013.

⁵² According to George Town’s Special Area Plan (2011), category II buildings are those “of special interest that warrants every effort being made to preserve them”. See: *Draft Special Area Plan, George Town: Historic Cities of the Straits of Malacca* (George Town, Penang: State Government of Penang, 2010).

⁵³ This incident was (allegedly) triggered by the export of fake birds’ nests with dangerous nitrite levels to China from Malaysia, and resulted in the near collapse of the swiftlet farming industry, given that China has always been the primary market for EBNs. This episode demonstrated how the physical landscape in one place can be dramatically influenced by political-economic changes elsewhere. See Connolly, ‘A Landscape Political Ecology of “Swiftlet Farming” in Malaysian Cities’, chapter 4, and; Thorburn, ‘The Edible Birds’ Nest Boom in Indonesia and South-east Asia’ for more on this topic.

⁵⁴ MBPP (Majlis Bandaraya Pulau Pinang), ‘Laporan Industri Dan Premis Burung Walit Di Dalam Tapak Warisan Dunia George Town’ (George Town, Penang, Jabatan Warisan, 2013), np.

⁵⁵ GTWHI (George Town World Heritage Incorporated), *Draft Guidelines for Heritage Impact Assessment (HIA) World Heritage Cities of Melaka and George Town*, (George Town, Penang, 2010), pp. 76-77, (available at: www.gtwhi.com.my/index.php/regulate/2015-01-21-04-01-01/2015-01-21-04-18-59).

⁵⁶ Note: this excludes Penang and Malacca, where heritage was the largest concern, due to the UNESCO World Heritage listing in both cities.

⁵⁷ On an earlier visit to Taiping, I came across a hotel which operated a swiftlet house on the top story, while the bottom three stories were rented out to human occupants (!)

⁵⁸ J. Lepawsky and R. C. Jubilado, ‘Globalizing Kuala Lumpur and rationalizing the street’, In S.G. Yeoh (ed), *The other Kuala Lumpur* (London, Routledge, 2014), pp. 22-37.

⁵⁹ T.K. Ho, ‘Swiftlet rearing in town a health threat’, *The Star*, 6 February, 2009, p.N49.

⁶⁰ Quoted in anonymous, ‘Chow: Swiftlet farms being phased out’, *The Star*, 14 April 2013, np.

⁶¹ Mulligan, et al., ‘The place of health and the health of place’.

⁶² Elizabeth Cardoso, interview, 8 October 2013.

⁶³ Duckett-Wilkinson, correspondence, 15 December 2010.

⁶⁴ Duckett-Wilkinson, correspondence, 5 May 2011.

⁶⁵ Indeed, Duckett-Wilkinson has spoken to several local doctors in George Town about this issue, who have verbally confirmed that cases of lung disease are ‘disproportionate’ in Georgetown (Duckett-Wilkinson, interview, 22 October 2013).

⁶⁶ Duckett-Wilkinson, open letter, 20 June 2010; citing DeWitt, M.L. “cryptococcus” <http://emedicine.medscape.com/article/215354-overview>.

⁶⁷ *New Straits Times*, 9 September 2009, np.

⁶⁸ In: R. Nathan, ““More Seminars” plan for bird’s nest farmers. *The Star*, 6 June 2003, p.13.

⁶⁹ See Mulligan et al., 'The place of health and the health of place'; T. Bunnell, 'Re-viewing the Entrapment controversy: Megaprojection, (mis)representation and postcolonial performance. *GeoJournal*, 59, 2004, pp.297–305.

⁷⁰ Carpiano, 'Come Take a Walk With Me'.

⁷¹ M. Gandy, 'Marginalia: Aesthetics, Ecology and Urban Wastelands', *Annals of the Association of American Geographers*, 103(6), 2013, pp.1301–1316; A. Loftus, 'Working the socio-natural relations of the urban waterscape in South Africa', *International Journal of Urban and Regional Research*, 31(1), 2007, pp.41–59; E. Swyngedouw, 'The City as a Hybrid -- On Nature, Society and Cyborg Urbanization', *Capitalism, Nature, Socialism*, 7(2), 1996, pp.65–80.

⁷² See for example: Mitchell, *The Lie of the Land*; D. Matless, 1998. *Landscape and Englishness* (London: Reaktion Books).

⁷³ See, for example: P.Y. Hung, *Tea Production, Land Use Politics, and Ethnic Minorities: Struggling Over Dilemmas on China's Southwest Frontier*, (New York, NY: Palgrave Macmillan, 2015); Neumann, 'Political ecology III'; Walker and Fortmann, 'Whose Landscape?'.

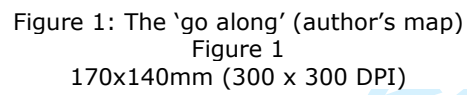




Figure 2: The 'jack roof' on a (former) swiftlet house behind Pitt St. Notice the sealed up air vents, revealing the buildings former purpose (author's photo)

Figure 2

169x225mm (72 x 72 DPI)



Figure 3: Side and back view of the Eu Yan Seng building. Notice the faux windows and metal fencing atop the building, to secure and conceal the swiftlet farm in the back (author’s photo).

Figure 3
225x169mm (72 x 72 DPI)



Figure 4: Before and after shot of the EBNI building on Lebuhr Pasar (Market St.; source: MBPP).

Figure 4

206x159mm (72 x 72 DPI)



Figure 5: Active swiftlet farm above a popular Tomyam Noodle shop on Chulia St., George Town WHS. Notice the tell-tale ventilation holes and boarded-up windows on the upper stories (author's photo).
Figure 5
1047x1397mm (72 x 72 DPI)